

WHAT IS CLAIMED IS:

1. A voltage block and color change apparatus for a waterborne paint bell applicator comprising;
  - 5 a bell applicator having a paint receptacle and being movable to and from a docking position;
  - a paint canister in said bell applicator connected to said paint receptacle;
  - a paint filling station; and
  - 10 at least two paint injectors attached to said filling station, each of said paint injectors being adapted to be connected to a different color paint, said filling station being actuatable to move each of said paint injectors selectively to the docking position for engagement with said paint receptacle for filling said paint canister with paint.
- 15 2. The apparatus according to claim 1 wherein said paint injectors are mounted in a circular pattern spaced about a rotatable annular manifold and are rotated to the docking position.
3. The apparatus according to claim 2 including a shroud washer positioned in a  
20 center opening of said manifold for receiving said bell applicator.
4. The apparatus according to claim 2 including a shroud washer positioned beside said manifold for receiving said bell applicator.
- 25 5. The apparatus according to claim 1 wherein said paint injectors are mounted in a linear pattern on a manifold and are moved along a linear path to the docking position.
6. The apparatus according to claim 5 wherein said paint injectors are mounted  
30 in two rows facing a common axis and the docking position is on the common axis.



a robot arm attached to said robot wrist; and  
a servomotor for moving said piston in said cylinder to dispense paint from said  
cylinder and to refill said cylinder with paint, said servomotor disposed  
within a housing of said bell applicator and connected to an electrical wire  
5 bundle, said bundle having electrical wires disposed within at least one  
tube, said bundle extending from said servomotor through said robot wrist  
and through said robot arm and adapted to be connected to a power  
source, and said at least one tube and said housing being gas pressured.

10 13. The paint applicator according to claim 12 including an air supply line  
connected to said robot arm for supplying pressured air to said housing through said at  
least one tube.

14. The paint applicator according to claim 13 including at least one of a purge  
15 pressure switch mounted in said housing for measuring a pressure of the air in said  
housing and a maintenance pressure switch mounted in said housing for measuring a  
pressure of the air in said housing.

15. The paint applicator according to claim 13 including at least one of a purge  
20 pressure relief valve mounted in said housing for allowing a predetermined amount of the  
air in said housing to purge outside said housing and a safety relief valve mounted in said  
arm to protect from an overpressure condition.

16. A voltage block and color change apparatus for a waterborne paint bell  
25 applicator comprising;  
a bell applicator having a paint receptacle and being movable to and from a  
docking position;  
a paint canister in said bell applicator connected to said paint receptacle;  
a paint filling station;  
30 at least two paint injectors movably attached to said filling station for individual  
movement toward and away from the docking position along an interface

axis, said at least two paint injectors being selectively movable to align a selected one with the interface axis; and

a firing cylinder actuatable to move said selected one paint injector along the interface axis to the docking position for engagement with said paint receptacle for filling said paint canister with paint.

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17. The apparatus according to claim 16 including a paint injector valve in each of said at least two paint injectors and means for sensing an absence of said bell applicator at the docking position to prevent opening of said paint injector valves.

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18. The apparatus according to claim 16 wherein each of said at least two paint injectors is mounted on an associated slide movable on said filling station.

19. The apparatus according to claim 18 including a return spring for moving each said slide and said associated paint injector away from the docking position.

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20. The apparatus according to claim 16 including a plurality of paint injectors mounted in two rows movable relative to the docking position, said rows forming a generally V-shaped assembly.

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